ABSTRACT

(IPv6) is the next generation network protokols that will replace IPv4. Various mechanisms have been made to interconnect IPv6 and IPv4 networks, but the developed mechanisms require manual configuration. Therefore Automatic Tunneling is a more suitable mechanism for addressing the issue. However, the use of Automatic Tunneling will therefore affect the QoS in the network so Tunnel Broker is used for manual configuration can be implemented more easily without sacrificing network performance.

At this Final Project, the implemented transition mechanisms are 6to4 Tunneling, Configured Tunneling, and Configured Tunneling with Tunnel Broker service. The analyses are the use of these methods on HTTP and video streaming application.

From the experiments results concluded that Configured Tunneling is known for better performance than the Automatic Tunneling with the largest value are Delay 29.0295, Throughput 47843.353, Jitter 14.61, Packet loss 34.033, Throughput HTTP 9505.8098 and Retransmission 0.0862. While in Configured Tunneling with Tunnel Broker service, the performance difference is not too large with the largest margin between Configured Tunneling and Tunnel Broker for delay are 20.9501 and 20.542, throughput 76650.69 and 75154.718, jitter 10.10 and 10.729, sebesar 21.827 and 22.44, throughput HTTP 271247.8 and 262482.42, and Retransmission 0.0564 dan 0.0597.